



THE FOLLOWING ARTICLE IS A SUMMARY OF A LITERATURE REVIEW OF ADOLESCENT ORAL HEALTH IN NEW ZEALAND. THIS REVIEW WAS THE END POINT OF A SUMMER STUDENT SCHOLARSHIP FUNDED BY THE NZ BRANCH OF ANZSPD.

Summary of the Oral Health of New Zealand Adolescents

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Adolescence is a time of development of individual identity, while pushing boundaries and moving away from the family unit to become established in society. There is a degree of personal autonomy emerging, which means there is more freedom to make decisions. Puberty is defined as the physical and mental changes that occur during adolescence. The World Health Organisation (WHO) defines young people as those between the ages of 10-24 years, and defines health as, "Physical, mental and social wellbeing, not merely the absence of disease or infirmity"¹. The WHO defines Oral Health as having, "a natural, functional, acceptable dentition which enables an individual to eat, speak and socialise without discomfort, pain or embarrassment, for a lifetime, and which contributes to general wellbeing"¹. The physical aspects of oral diseases such as caries, periodontal disease and malocclusion have been shown to greatly correlate with the mental and social wellbeing of adolescents, however many other factors effect an adolescent's oral health related quality of life (OHRQoL)². Maintaining a natural, functioning dentition throughout life is ideal for social and mental well-being. The behavioural management of adolescents may be a challenge dentists face when treating this age group. From a health practitioner's point of view, during this time they can be very difficult to motivate, and even converse with. An awareness of the challenges that are part of this stage, and understanding the issues that the young patient may be struggling with, is fundamental to managing these patients.

General Aspects of Adolescence

Adolescents who experience moderate levels of acne have been shown to be more prone to depression and other psychological disorders³. The social effects of acne were investigated in sixth and seventh formers at schools in Auckland⁴. The schools were selected to be representative of all levels of socio-economic status (SES) in the area. Ninety one percent of males and 79% of females in the 847 adolescents who completed the questionnaire and examination had experienced acne. The severity of the acne determined the lack of enjoyment and level of participation in social activities and extent of embarrassment caused by the condition. It was also found that parental occupation and ethnic group was related to the knowledge of treatment for acne⁴.

Tobacco smoking has been shown to have a direct link to periodontal disease in adolescents⁵. Tobacco smoking in the adolescent population has been said to be decreasing over the last few decades however between 2006 and 2007, one in seven 15 to 17 year olds were current smokers (15.3%), even though it is illegal to purchase tobacco at this age in New Zealand. Māori female were found to be twice as likely and male Māori 1.5 times more likely to smoke in this age group than the rest of the population at that age⁶.

Potentially hazardous drinking is highest in the 18-24 years age bracket in comparisons to all other age groups⁶. Half of all young men and a third of all young

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women in this age group were found to have a hazardous drinking pattern when assessed using a questionnaire. Fifteen – sixteen-year-old New Zealanders were found to be 3.2 times more likely to commit violent offences if they misused alcohol, even after the confounding effects of the family's social background, individual characteristics and adolescent peer affiliations were taken into account⁷.

Obesity in early adulthood is predicted by the body mass index (BMI) of the young adolescent and parental obesity. The BMI is a way of measuring whether a person is under or over weight using a height to weight ratio. At age 15 it was found that males with a BMI above the 75th percentile in New Zealand were 9.8 times more likely to be obese at age 21, similarly females were 6.8 times more likely to be obese at 21.8. The BMI is a good standard measure of obesity however it is not an accurate measure for some ethnicities (particularly Pacific Islanders) and those who have excessive muscle mass⁸. As a young person grows and matures the influence from food marketing, their peers and the media becomes stronger than family influence, and this has a significant effect on New Zealand adolescents. In 2002, over a third (33.6%) of 11-14 year olds were considered overweight or obese in New Zealand⁹. Thirty-eight percent of adolescents in New Zealand aged between 13 and 17 years are considered to be physically inactive⁹. Lack of physical activity, skipping breakfast, frequency of purchasing fast food and time spent watching television are all associated risk factors for obesity in the young people of New Zealand¹⁰. The main cause of obesity in all age groups is said to be an energy imbalance – where the amount of food or energy intake is greater than that which is utilised in the natural body processes and physical activity¹¹. High rates of caries have also been associated with obesity in the New Zealand population¹².

The 2006/7 New Zealand Health Survey found one in five children aged 2–14 years had consumed three or more fizzy drinks in the previous week⁶. Also nearly half of these children and young people had consumed five or more fizzy drinks in the previous week. When calculated with the New Zealand Deprivation Index, 2006 13 the proportion of children who had three or more fizzy drinks in the past week and also who had eaten fast food 3 or more times in the last 7 days was significantly higher in children from the most deprived households. After

adjusting for age, Pacific girls and Māori boys were significantly more likely to have had three or more fizzy drinks in the past week compared to girls and boys in the total population. Pacific boys and girls were twice as likely to have eaten fast food three or more times in the previous seven days compared to boys and girls of the total population. The advantages of this survey are that it was a large scale survey, considered to be representative of New Zealand's population. This evidence suggests that consumption of unhealthy foods in New Zealand is a real issue, and it is the least well off who are the most at risk of a detrimental diet⁶.

A qualitative study investigating food choices and shopping patterns of families in New Zealand was conducted by¹⁴. They found that 13-16 year old girls tend to consume more fruit and vegetables than boys. Both teenagers and 'parent-shoppers' understood what was good for them and what was bad for them, however, they did not understand why fruits and vegetables were good for them. They also reported that, healthy foods tend to be more expensive than unhealthy convenient foods.

Restricting the amount of sugar intake for adolescents is likely to benefit both oral health and also general health. The Ministry of Health guidelines for healthy children and young people states that sucrose and other free sugars should contribute no more than 15% of the total energy of adolescents per day. High fat, sugar and salt foods such as muffins, sweets, biscuits, cakes and sugary drinks contributed to 20% of children's (2-18 year olds) energy intake per day in 2002⁹.

As adolescents grow and mature, they need to make their own decisions about diet, alcohol and drug use, and sexual activity, so one thing which is likely to not be at the forefront of their minds is their dentition. As these changes occur however, changes also occur in the oral environment and the lifestyle of the adolescent can affect their dentition for the rest of their lives.

Dental Caries

Dental pain, tooth brushing, the use of dental services, restorative treatment and tooth loss were examined in 13-17 year-old secondary school students¹⁵. This study found that 72% said they had a dental visit, with more female and those who had been kept up at night with dental pain represented in this group.

One in seven participants had lost a tooth due to oral disease and this was significantly higher for Māori and those who were living in high deprivation areas. Māori were the least likely ethnic group to have brushed their teeth twice in the last 24 hours. Having a filling placed in a tooth was reported as significantly more common in Māori, those living in high deprivation areas and in the older age group. In order to reduce the disparity between the oral health of adolescent Māori in New Zealand, strategies that are culturally appropriate and relevant need to be developed. Suggested ways in which this can be achieved are to increase the number of Māori health providers, develop and re-orientate the resources of the existing providers and to offer new Māori dental services¹⁶.

Social discrepancies and caries

Māori and Pacific Island adolescents and those from a low socioeconomic background, do not enjoy the same level of oral health when compared to other New Zealanders¹⁷. A cohort study of 255, 13 to 16-year-olds found the caries experience for Māori adolescents was 4 times that of non-Māori¹⁸. Ninety percent of 12-13-year-olds who reside in Northland (of whom approximately two thirds are Māori) were found to have caries experience compared to only 50% of all New Zealanders at this age¹⁹. Among children and adolescents aged 5–17 years, the mean DMFT score was 1.8 times higher for Māori than for non-Māori²⁰. Māori and Pacific Island adolescents are significantly more likely to have had a tooth removed due to decay, abscess, infection or periodontal disease²⁰. It has been noted that the GDB scheme was successful in breaking down the barriers to dental care for adolescents, however has not reached those most at need such as minority populations with access being the largest barrier to care²¹. SES aims to describe deprivation and essentially the financial wellbeing of a household. SES can comprise different descriptors such as parental occupation, geographical area of deprivation or school decile.

Policies to enable change in caries

Analysis of data from the DMHDS found adult oral health was predicted by childhood socioeconomic status and oral health in childhood²². The factors which affect childhood oral health appear to

continue to affect, or at least have a lasting effect on individuals when they reach their adolescent years. By age 18, only 2 out of the group of 789 individuals had lost teeth due to caries, however by age 26, 10% had lost teeth due to caries. Low SES individuals were found to have lost more teeth. Children, who had had a general anaesthetic for dental treatment at age 5, were four times more likely to experience caries in their permanent dentitions²³.

Thomson *et al.*, 2004, make the following suggestions for reducing health inequalities:

- Changing basic social economic determinants, such as reducing the prevalence of poverty and improving educational and employment opportunities.
- Changing intermediary factors between oral health and its socioeconomic determinants such as increasing the availability of topical fluoride.
- Developing oral health services which are more stable, both by developing new services where appropriate, and making changes to existing ones.

The psychosocial effect of oral status

There is evidence on NZ dental caries status from investigation of caries experience and oral health related quality of life². The Child Perceptions Questionnaire (CPQ₁₁₋₁₄) asked 13-16 year olds questions relating to their oral health including, for example whether they had experienced pain and/or bullying due to their dentitions. This paper showed a significantly higher (worse) emotional well-being score for those with a decayed missing or filled surfaces (DMFS) of 4 or more, and adolescents who were significantly affected by their oral health status tended to have an average DMFS of 6.3. It is interesting that, whilst it may be thought that the higher the DMFS the lower the overall oral health-related quality of life (OHRQoL), no such gradient was found in this study. At age 13 years, 34% of the participants were caries free but by 16 years only 20% were caries free.

Periodontal health

Gingival recession has been found to be linked to a common New Zealand adolescent trend – oral piercings. Leichter and Monteith²⁴ reported 68.13% of

their participants experienced gingival recession associated with teeth opposing a labret (lip piercing), compared to 22.2% in non-pierced individuals. They found that the wearing of a labret may increase the risk of recession from 34.4% (pre-piercing) to 80.8%. A convenience sample of 43 New Zealand adults (mean age of 21 years) who had tongue and lip piercings were investigated and 80% of those with labial piercings were found to have 1+ labial site(s) with gingival recession²⁵.

The link between smoking and periodontal disease has been investigated in New Zealand and it was concluded that prolonged exposure to cigarette smoke causes the rate of periodontitis to increase dramatically, in even the young adolescent population^{5,26}. Cigarette smoke affects the chemotaxis of neutrophils and other immune cells of the body which enhances the rate of attachment loss. Periodontal disease has periods of progression and remission however there tends to be longer periods of progression and shorter periods of remission when an individual smokes. Smokers in the DMHDS cohort who smoked continuously from ages 15, 18, 21 and 26 years were three times more likely to have sites of 4mm loss of attachment than the group who had never smoked⁵. It was found that there was improvement in the health of the periodontium once the participant had stopped smoking²⁶.

Malocclusion

Adolescence is a time when orthodontic treatment is often initiated, as the permanent dentition is present, and the pubertal growth spurt can be utilised to effect tooth movement efficiently²⁷. Both treatment and the outcomes of treatment may have psychosocial effects for adolescents. In New Zealand it has been noted that 60% of orthodontic patients are female, over half of all 10-14 year-old orthodontic patients live within a five kilometre radius of an orthodontist. General dentists treat approximately one quarter of the orthodontic case load in New Zealand, usually in the absence of an appropriate orthodontic specialist²⁸. Half of all the orthodontists patients were referred by dentists, one quarter were referred by dental therapists and another quarter self-referred²⁸. For New Zealand adolescents the most common indication for dental extractions is for orthodontic reasons²⁹.

Whilst malocclusion may cause functional, aesthetic and psychological impairment,

it is not a disease and thus it is not always necessary for a malocclusion to be treated. Measuring severity of malocclusion and/or need for treatment is complex. There are two main measures of malocclusion: the Dental Aesthetic Index (DAI)³⁰, and the Index of Orthodontic Treatment Needs (IOTN)³¹. There has been debate upon which of these measures is the most encompassing of both the physical and psychosocial aspects of malocclusion.

Māori have been found to have lower DAI scores than non-Māori and thus a lower perceived need for orthodontic treatment³². Māori and Pacific Islanders present with the permanent dentition earlier than European New Zealanders³³. Māori also tend to have broader dental arches thus crowding of the dentition may be reduced in the long term. Māori may also perceive orthodontic treatment as not being necessary or attainable from a cultural perspective. The concept of Whakama [psychosocial and behavioural construct in Māori, where shame, self-abasement, feeling inferior, inadequate and with self-doubt, shyness, excessive modesty and withdrawal are some aspects³⁴] is possibly involved in uptake of treatment. Even though there is no evidence for this, the shame of requiring orthodontic treatment and the stigma around having 'braces' may outweigh the benefits of orthodontics from a Māori adolescent's perspective. Cost was the reason given by the two thirds of Māori children who required treatment but did not access care³².

Oral Health Related Quality of Life (OHRQoL) may also be measured to determine the effect of the dentition and associated features on physical, social and psychological aspects of life². There have been several different questionnaires used to measure OHRQoL in children, adolescents and adults. When assessing NZ adolescent's OHRQoL the Child Perceptions Questionnaire (CPQ₁₁₋₁₄) has been shown to be responsive and acceptable clinically as a measure of the impact of malocclusion on quality of life³⁶. Using the CPQ₁₁₋₁₄ alongside DAI in 353, 12-13 year olds enrolled with the Otago District Health Board (DHB) School Dental Service, it was found that individual psychosocial characteristics (such as self-esteem, general wellbeing and self-perception for body image) were more important for OHRQoL than socio-economic status, or malocclusion, and general well-being was seen to be the strongest predictor of OHRQoL³⁶. After

studying a sample of 353, 12 to 13-year-old participants enrolled in the Otago District Health Board School Dental Service, it was found that those who were self-motivated to seek orthodontic treatment had greater somatisation (the manifestation of psychological issues as physical problems) scores and more body image concerns³⁷. Each of the study members completed a self-administered questionnaire and had a clinical examination. The OHRQoL measure was the CPQ₁₁₋₁₄ and the results showed a very strong correlation between the perceived need for orthodontic treatment and the psychosocial variables. This evidence suggests that the emotional characteristics and how adolescents perceive themselves may have a large effect on their pursuit and uptake of orthodontic treatment².

Psychosocial variables such as somatisation, self-perception of body image and psychological wellbeing have been found to be more important to OHRQoL than SES factors. The CPQ₁₁₋₁₄ was developed for use with those aged 11-14 years and asks a number of questions which inquire about the children (adolescents) in relation to their dentition. The CPQ₁₁₋₁₄ has been shown to have an acceptable level of responsiveness and can detect clinically meaningful change³⁷. It is well known that lower SES is related to poorer oral health²⁰ but the psychological aspect of oral health is a somewhat new concept when looking at the factors affecting an adolescent's dentition. In this cross sectional survey the investigators noted that 50% of the 12-13 year olds were caries free but a high rate of caries was experienced by 10% of the 353 participants. Adolescents who reported poorer oral health had worse quality of life scores and a higher mean (worse) CPQ₁₁₋₁₄. Females presented with higher CPQ₁₁₋₁₄ scores, lower self-esteem and lower general well-being than their male counterparts. Interestingly Māori were found to have lower CPQ₁₁₋₁₄ (better OHRQoL) than the other ethnicities in the study. This evidence suggests Maori adolescents do not experience the same psychological distress concerning their dentition as other New Zealand groups. Residing in a high deprivation area was also not associated with poorer OHRQoL.³⁷

Attitudes to dental care

A qualitative study using focus groups in the Dunedin area investigated the barriers to uptake of dental care by adolescents aged between 13 and 18 years³⁸. This group of adolescents is entitled to free

basic dental care through AOHSA. The focus groups comprised adolescents from rural schools and urban schools, working adolescents and a Child, Youth and Family (CYF) home. The three main barriers to uptake of dental care were the lack of relevance of current dental care to adolescents, negative experiences of the dental surgery, and a vicarious belief of the high cost of dental care. Dentistry was seen to have developed without reference to the changing ideals of youth culture and dental surgeries are not seen as appropriate or inviting by adolescents. The dental surgery was seen as "just so gay" or trivial and boring. One quarter of the 150 participants were seen to be symptomatic attendees despite oral health care being free for this age bracket. Dentists were viewed as wealthy, clever and capable of long years of study but also somewhat gross for their career choice. Only 1 of the 150 young people stated that she might consider becoming a dentist. The extensive cost of dental care was a unanimous theme among all the focus groups and seemed to be vicarious or learned as this was the view the adolescents had been given by their parents and what they say about dental care.

Suggested strategies to combat the negative image of the dental environment are have a young, empathetic dental team including a receptionist who is young, motivated to work with adolescents and who understands the culture of the time³⁸. The reception area could have entertaining magazines and when the adolescent is in the chair headphones playing music chosen by the adolescent (and that can be changed by the patient) could be a good relaxation method. There was higher uptake and utilization for adolescents when the treatment was aimed specifically at them³⁹. The analysis of the effectiveness of the current oral health care schemes concluded there was a need to move away from a biomedical/behaviours 'downstream' approach to an 'upstream' approach. This addresses the underlying social determinants of oral health for our adolescents from a population perspective. A key outcome of this research is that we need to target social environments rather than individuals to move away from the victim blaming ideology and towards resolution of the current oral health issues of today⁴⁰. This is relevant when treating adolescents as they want to be respected as young adults and they are more likely to respond to health care and dental treatment if the care is directed towards

them in particular³⁹.

Conclusion

Adolescence is a time of change both physiologically and psycho-socially, developing personal identity and beliefs. Decisions concerning both general health and oral health are critical, and outcomes can have a significant impact on future lives. Whilst in childhood the choices that parents/caregivers make on behalf of their children creates the foundation of risk, in adolescence there is a transfer of ownership, responsibilities and consequences for such choices.

The effective management of an adolescent involves the recognition of their increased responsibility and maturity, and treating them in an appropriate manner for their stage in development. It is important to discuss the proposed treatment plan with the adolescent giving choices and opportunities to make their own decisions. By the time a young person is able to comprehend the proposed treatment, they are able to give (or not to give) informed consent, even if they are below the age of 16 years. Spending the time to discuss treatment, ask about their interests and being considerate are important contributing factors to reduce dental anxiety and ultimately allow the adolescent to develop into a compliant, dentally conscious adult.

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Federal President's Report

John Sheahan

I have just recently returned from Wellington where I attended the New Zealand Branch's Annual Study Day and Annual General Meeting.

It is customary for the Federal President to attend a scientific meeting run by each Branch during the Federal President's term in office. Such is the importance of this custom that the main costs associated with the Federal President's attendance are borne by ANZSPD's federal body.

Although Melbourne is notorious for having four seasons in one day, Wellington proved that it can have four seasons over two days. While there, I experienced everything from heavy rain and cold gale-force winds on one day to bright blue sunny skies and a zephyr on the next. Unlike the weather, my welcome by Branch Members and the hospitality I received were invariably warm and friendly. The scientific programme was very well presented by several local Members and by the principal guest speaker, Ms Melanie Woodham, a psychologist, who gave a most interesting lecture focusing on the long-term influence of parental bonding and consistent discipline on childhood confidence. I was grateful to be offered the opportunity to speak for a brief time about where I saw ANZSPD heading over the remainder of my presidency. I trust that I was able to give the delegates a better insight into my vision for the future direction of our Society. Once again, I would like to extend my thanks to the NZ Branch for its kind invitation and offer my congratulations to the Branch Committee under the leadership of then Branch President, Dr Heather Anderson, for running such a wonderful meeting so seamlessly.

These visits to the Branches have proved to be a great opportunity for me to meet many of the Branch Members who cannot travel to attend a Biennial Conference or RK Hall Lecture Series or who simply get lost from view in the size of these events. They have also allowed me an opportunity to better understand the workings of each Branch, the personalities involved, the Members' concerns and the issues affecting the operation of the Branch itself. While there, I have been able to act as a conduit for the exchange

of information between Branches facing similar challenges. Within ANZSPD, the New Zealand Branch is unique. In contrast to our Australian Branches where membership is highly centralised in the respective state capital cities, it seems the membership of the New Zealand Branch is highly decentralised geographically, with many members living and working in each of the nation's five major cities and also in a number of major towns. While the distance between cities is less in New Zealand, it was necessary for most of the delegates to fly into Wellington to attend the Branch meeting. This makes meeting together to share educational opportunities, common interests and the fellowship of other Members more difficult than in other Branches. Of course, the overriding difference from the other Branches is the fact that the New Zealand Branch operates under different national legislation and regulation and uses a different currency.

As all Members will know, the revitalised ANZSPD website (www.anzspd.org.au) was launched in November, 2014. Please take the time to make yourself familiar with it because it is already packed with news and information to help keep you up to date on the world of paediatric dentistry. This website will be far more dynamic than ANZSPD's previous website, so it is important to return to it time and time again to keep abreast of the latest paediatric dental advice and the upcoming continuing education courses in paediatric dentistry being run both in your local area and further afield. The website's functionality is only limited by the Society's imagination. For example, a "Find a Member" function will be added in time, and in the future, individual Branches may voluntarily choose to have delegates pay registration fees for one or all of the Branch's scientific meetings via the website. ANZSPD has always been keen to improve its service to the profession and the broader community. To this end, ANZSPD would welcome your feedback about the website or any

of ANZSPD's other activities. On behalf of ANZSPD, once again, I would like to thank Dr John Winters who has worked tirelessly to facilitate the development of the new website and all the members who have contributed in any way to the available content.

From now on, Members of ANZSPD's Australian Branches will pay their Annual Subscriptions via the website. I am pleased to report that for the 2016 calendar year, Members of the New Zealand Branch will also pay their Annual Subscriptions via the website. This delayed involvement by the New Zealand Branch was agreed to by the Federal Council in acknowledgement of the unique position of New Zealand Branch within our trans-Tasman organization. I would like to thank each Branch Executive and Federal Councillor for supporting this Federal initiative by leading this change in their respective Branch. Unexpected glitches come with any change. I would also like to thank Members for their patience if they experienced a problem paying their 2015 Annual Subscriptions on the website during the transition to this new payment system.

Two meetings of ANZSPD's Federal Council will take place in 2015. The first will be held in Brisbane on Saturday, 28th March and the second in conjunction with ANZSPD's 18th Biennial Conference in November. Proposed agenda items for a meeting of Federal Council are accepted from individual Branches via the Branch's Federal Councillor and may also be accepted from individual Members and from external sources. Proposed agenda items which do not have the endorsement of an ANZSPD Branch should be sent directly to the Federal Secretary/Manager, Dr Peter Gregory, well in advance of the meeting at which the Member or external source would like it discussed. These unendorsed proposed items will be added to the agenda at the discretion of the Federal Executive.

The website of ANZSPD's 18th Biennial

Conference (www.anzspd2015.com.au) has also been launched recently. To be held from 12th November to 15th November, 2015 in Adelaide, South Australia, the Conference promises to be ANZSPD's biggest ever Federal Scientific Meeting. With a 2½ day Scientific Programme and some concurrent sessions, the Conference, which is being organized on ANZSPD's behalf by our South Australian Branch, promises to provide unprecedented choice and diversity for continued professional development in paediatric dentistry. The Conference theme is "The Great White Bite" and it is "all about providing delegates with the most up-to-date information to help them succeed in ensuring their paediatric patients get the best ever smiles, not just by repairing damaged teeth but also providing them with a safe and happy environment that will ensure they stay positive about their oral health and dental care for the rest of their lives". Registration and scientific programme information are expected to be available on the Congress website at the end of March, 2015. This meeting promises to be well-attended and will be immediately preceded by 25th Anniversary Celebration of the Australasian Academy of Paediatric Dentistry (AAPD). As a Member of AAPD, I am looking forward to both meetings.

I am also looking forward to attending the 25th Congress of the International Association of Paediatric Dentistry (IAPD), which is to be held in Glasgow, Scotland from 1st July to 4th July, 2015. This event is shaping up to be one of the best IAPD Congresses yet. Registration is open, and details of the scientific and social programmes are now available on the Congress website (www.iapd2015.org).

For those of you who like to plan well ahead, the dates of the 26th Congress of the IAPD have been announced. This meeting will take place in Santiago, Chile from 4th October to 7th October, 2017. You can already register your interest on

the Congress website (www.iapd2017.com) so that you receive regular updates about the Congress as they are released.

In the last issue of Synopses, I encouraged Members who were eligible to vote in the election for the Council of the Royal Australasian College of Dental Surgeons (RACDS) to consider voting for Members of ANZSPD who were likely to accept nominations. I am pleased to report that three of our Members, Dr Peter Gregory, Assoc. Prof. Nicky Kilpatrick and Assoc. Prof. Richard Widmer were elected to the RACDS Council. Moreover, Dr Gregory has also been elected the College's Executive Officer. I have already extended to them the Society's heartiest congratulations on their successful election to the RACDS Council and thanked them for taking on this enormous responsibility. I feel sure that never before in Australia or New Zealand has paediatric dentistry been so well represented in the management team of a multidisciplinary dental organisation with members who come from many different countries. Combined with the voice of Dr Albert Lee, a paediatric dentist practicing in Hong Kong, paediatric dentists now command four out of the twelve votes on the RACDS Council. While I know College Councillors have a responsibility to the College and to Dentistry in general, I believe that the presence of so many paediatric dentists on the RACDS Council will have an overwhelmingly positive long-term effect on the oral health of the infants, children and adolescents of Australia and New Zealand.

I am pleased to report that the 2014 ANZSPD Alistair Devlin Memorial Grant has been awarded by the Federal Council to Assoc. Prof. John Brownbill. The grant will support John's research entitled, "The effectiveness of a simplified method of managing carious primary molar teeth in preschool children using preformed metal crowns - Phase 1 (Pilot Study)". After awarding the inaugural grant to its anonymous successful applicant, Federal Council was pleased to discover that the

winner was someone who knew Alistair well and who has contributed so much to dentistry, and in particular to paediatric dentistry, over many years.

I am also pleased to report that the 2014 Louise Brearley Messer Essay Prizes have also been awarded. I extend ANZSPD's congratulations to the winners, Dr Rana Yawary from the University of Western Australia who won the postgraduate competition and Mr Kenneth Koh Shou Bin from the University of Adelaide who won the undergraduate competition. Both essays will be published in Synopses in due course. Once again, ANZSPD is indebted to the examiners for generously committing some of their valuable spare time to assess the entrants' essays.

ANZSPD only continues to function so well because of the ongoing commitment of its Members to the organization's mission and the support of our major sponsor, Colgate. I would like to thank the Federal Councillors, the Branch Committees and in particular our Secretary/Manager, Dr Peter Gregory, for their contribution to the oral health of the infants, children and adolescents of Australia and New Zealand during 2014.

Finally, I wish that all Members of ANZSPD have a happy and productive year in 2015.

ANZSPD Secretary / Manager's Report

New Zealand Branch

Peter Gregory

Greetings again from the Secretary / Manager. Hope all is well in your part of the world. The Executive continues to be very active in many areas of the management of our organisation.

Website

The launch of the new ANZSPD website has now occurred. This has been an enormous task, and John Winters must be congratulated on his efforts in bringing this project to its fruition. Acknowledgement also must be extended to the army of people that John has mustered to provide content for the website. Because it is an interactive website, it is far more complex than just setting up a static one. New inclusions will certainly make the tasks of Branch Secretaries, Treasurers and the Federal Secretary/Manager, much easier and less time consuming. Most importantly, however, the members will benefit most from the new innovations that have now been included.

2014 ANZSPD Louise Brearley Messer Undergraduate and Postgraduate Essays. Congratulations to the winners are extended from the Federal President and members to the following:

Postgraduate Essay

Dr Rana Yawary, University of WA Post Graduate Student (Paediatric Dentistry)
Topic – "Discuss the management of the oral biofilm in paediatric dental patients".

Undergraduate Essay

Mr Kenneth KOH Shou Bin, University of Adelaide Undergraduate Student
Topic – "There is an emerging trend on the use of probiotics and organic diets. Discuss the effects of these supplements and diets on the oral environment of a child."

These essays will be published in a future edition of Synopses

2014 ANZSPD Alistair Devlin Memorial Grant.

It is with great pleasure that we announce the winner of this inaugural award is Dr John Brownbill from Melbourne, Victoria. It is fitting that Dr Brownbill, who has contributed so much to this Society and Paediatric Dentistry, is the recipient of this Grant. The Grant of \$2000 will be applied to research: *The effectiveness of a simplified method of managing carious primary molar teeth in preschool children using preformed metal crowns – Phase 1(Pilot Study).*

Other Grants.

Federal Council has also approved the following Grants for 2014.

- Cambodian Dental Project (Dr Callum Durward). Shipment of textbooks from Australia to Cambodia (\$1500).
- D3 Project (Dr Mike Hubbard and Professor David Manton) (\$5000).

Next ANZSPD Biennial Meeting

Dr Michael Malandris and his energetic and hard working team are busy planning what will be an excellent scientific and social event in Adelaide, SA in November 2015. The next AGM of the Society will be held in conjunction with this meeting.

Federal Council Meeting

The next Federal Council Meeting of the Society will be held at Rydges Hotel, Southbank, Brisbane on Saturday 28th March 2015. This meeting is being held in conjunction with the ADA Congress and to immediately follow the AAPD AGM

Constitutional Changes

The Federal ANZSPD (Inc.) Constitution has not been overhauled for years. It may not even now comply with the WA Regulatory Authorities. It is planned that a re-vamped constitution will be ready for voting at the next AGM in Adelaide in November 2015. If you have any issues with the current FEDERAL ANZSPD (Inc.) Constitution and wish to propose changes, please forward them to me in the form of a motion, duly seconded so they can be appropriately circulated prior to the meeting.

International Association of Paediatric Dentistry (IAPD)

The next IAPD congress is to be held in Glasgow, Scotland from 1st-4th July 2015. As a member nation of IAPD it is incumbent on us to offer any support we can, and particularly with our attendance. The very hard working, energetic and extremely active organising committee will produce an excellent event in a unique surrounding.

Please mark your diaries now!

Acknowledgements

I wish to again acknowledge the role the Federal President, Dr John Sheahan, is playing in leading our organisation. It is over 30 years since I was President and I can see just how much additional work and effort is required these days. I would also like to thank the Federal Councillors, Branch Executive and the members of our organisation for their continuing support. Special thanks must go to Susan Cartwright and her wonderful team at Colgate, for their never-ending support and sponsorship.

Incidental finding of a painless facial lump. Case Report

Jolin Yang, Dorothy Boyd, Alison Meldrum

This report describes the detection, and differential diagnosis of a painless hard mass on the cheek of a 12 year-old girl.

A 12 year-old Caucasian female presented at the University of Otago School of Dentistry Paediatric Dentistry Postgraduate Clinic, accompanied by her mother and sister. She was referred by a general dental practitioner for assessment and treatment of severely broken down, carious first permanent first molars and other carious teeth. She had experienced occasional pain from the right upper and lower molar region in the past. She was healthy, and had no medical history of note, other than that she had not been immunised.

Examination of the extra-oral soft tissues, lymph nodes and the temporomandibular joints revealed a subcutaneous flat, hard, somewhat square mass, approximately 2cm x 2.5cm, which was palpated on the right pre-auricular parotid region (Fig. 1). The mass was freely mobile from the underlying tissues and was painless to touch. Apart from a tiny dimple visible on the overlying skin when manipulated (Fig 2), the lesion was not noticeable without palpation. It was also noted there were several moles and freckles present on the face. Upon questioning, the patient answered that she was aware of the lump but was uncertain about how long it had been present and whether it had changed in any way over time.

Intraoral soft tissues were normal, except for generalised plaque related marginal gingivitis, with poor oral hygiene. She had a class I occlusion and all permanent teeth

were present except for the permanent third molars. The labial surfaces of the upper central incisors had demarcated enamel hypomineralisation, and there was a combination of hypomineralised and demineralised enamel white spot lesions present on the buccal surfaces of several posterior teeth. There was also extensive caries present that required treatment. Of note the upper right first permanent molar was severely broken down. Radiographic examination included posterior bitewings, an orthopantomogram, and a soft tissue radiograph in the right retromolar/parotid region for assessment of the soft-tissue lesion detected clinically.

Differential diagnosis initially included a foreign body/tooth fragment, and a neoplastic, possibly calcifying, lesion of any of the tissues in the area, most likely parotid gland or epithelium.

Further investigation of the facial lump

The orthopantomogram (Fig. 3) and soft tissue radiograph did not detect the lesion, which appeared to rule out the possibility of a foreign body or tooth fragment that had become lodged in the buccal tissue or in the parotid duct, and travelled distally. The patient was referred for a fine needle aspiration (FNA) of the lesion. The pathology report from the FNA was inconclusive, however suggested "an epithelial neoplasm possibly originating from the parotid gland or dermis such as a cutaneous appendage tumour".

An excisional biopsy together with comprehensive dental treatment was

planned to take place under general anaesthesia.

Discussion

Detection of the lump

Carrying out a thorough and methodical history and examination is an important part of all specialist paediatric care. In this instance such an examination enabled the detection of a facial lump in a 12-year-old girl, when palpating the temporomandibular joints. Furthermore, the lesion had not been disclosed by the patient although she realised it was present, but had thought it unimportant.

Assessment of lumps

A methodical approach to history and examination of a lump is important in its accurate description and initial differential diagnosis. The differential diagnosis enables a management plan to be formulated and discussed with the patient, which can range from explanation and reassurance to carrying out further investigation or urgent referral for surgery.

History

Lumps generally fall into one of the following aetiological categories:

- 1) inflammatory (acute or chronic);
- 2) congenital or acquired;
- 3) traumatic;
- 4) Neoplastic (benign/malignant, primary/secondary);
- 5) Other (degenerative, metabolic, parasitic, hormonal disorder) (Draper 2010, Knight 1983, Davenport 1996).

Fig. 1
Lump not visible clinically



Fig. 2
Manipulation of the lump showing dimple

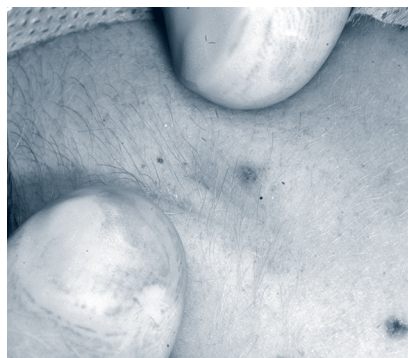
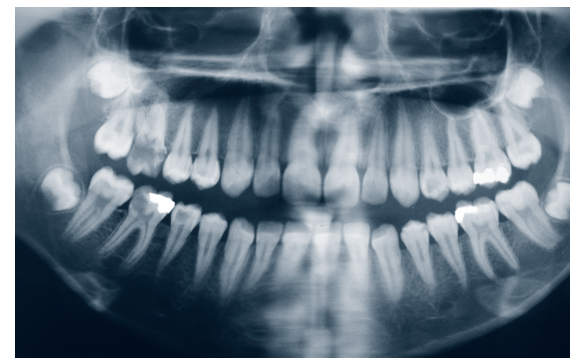


Fig. 3 Orthopantomogram showing carious teeth but no sign of the lump



A thorough history helps to determine the likely aetiology and behaviour of a lump. Important questions during history taking are listed below (Draper 2010):

- When was the lump first noticed?
- Has it changed in size?
- Is it painful?
- Any other lumps or associated symptoms?
- Any history of travel?
- Any history of illness present or past?
- Any medical conditions (family or patient)?

Examination

Examination of a lump involves visual inspection and palpation to determine its anatomical plane or origin. Table 1 outlines important aspects to be identified when assessing a lump and records should describe the physical characteristics of a lump from a visual and tactile perspective.

Further investigation of lumps

Some lumps can be clinically diagnosed without further investigations whilst others may require further investigation. These may include: 1) imaging such as plain radiography, computed tomography, magnetic resonance imaging (MRI), or ultrasound can assist in clarifying the

anatomy and diagnosis of some lumps; 2) FNA for cytological examination of some solid tumours; 3) aspiration followed by microscopy, culture and cytological examination for some cystic swellings; 4) full blood count, blood glucose and microbiological investigations may be useful for suspected infection and some neoplastic conditions; and 5) excisional biopsy, with histological examination and reporting.

Clinical differential diagnosis of the detected lump

Based on our clinical findings, radiographic investigation and information from the FNA report, we were able to derive a preliminary differential diagnosis that includes probable neoplasms arising from the parotid gland, dermis, and cutaneous appendages. Table 3 shows our list of differential diagnoses.

Pleomorphic adenoma was included in our differential diagnosis because it is the most frequently encountered salivary gland tumour (Speight and Barrett 2002), has similar clinical characteristics to our patient's lump, and the parotid gland was located nearby. Cutaneous appendage tumours are rare but occur most frequently in the head and neck region and can arise from any of the four types of cutaneous appendages i.e. eccrine sweat glands, apocrine sweat glands, sebaceous glands

and hair follicles (Yaqoob et al 2003). Although the FNA report suggested a possible neoplasm, the possibility of the more common epidermoid cyst was not excluded from our differential diagnosis because neoplasms of the head and neck do (rarely) occur in children.

This report shows the value of a thorough and methodical history and examination, and discussed the key aspects to record when examining a lump in the face. The final histological diagnosis following excisional biopsy and follow-up will be reported in a future publication.

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Table 1. Characteristics to identify when describing a lump

Tactile	Visual
Margins of lump may be regular or irregular; well-defined or ill-defined; sharp or rounded	Surface appearance of the overlying skin or epithelium e.g. uniform and smooth; irregular; raised/elevated; or flat
Size—an estimate can be determined by palpating the edges of the lump first. Shape e.g. round; irregular; angular; lobular	Size and shape – the size should be measured and recorded with a diagram showing dimensions, position and shape
Structure or consistency e.g. solid/fluid/gaseous; soft and fluctuant/hard or 'stony hard'/firm	Colour of overlying skin/epithelium e.g. inflammatory lesions may be red
Surrounding – check for associated lymph node swellings/drainage; and check corresponding area on other side of body	Site – describe the anatomical location or position in relation to other body parts
Stability – mobile; or attached to underlying or overlying tissues e.g. fixation may be to skin causing dimpling of the skin or to deeper structures	Secretion – e.g. punctum (with sebum secretion); or ducts/tract expelling pus or fluid
Sensation Temperature – inflammatory lesions may be warm due to increased blood flow Tenderness – inflammatory lesions are often tender to touch whereas tumours are often non-tender Pulsatile swellings – distinguish between transmitted and expansile pulsation	Sign of emptying – swelling or lump diminishes in size when compressed or disappears and slowly refills when pressure is released
	Sign of indentation – lump remains indented when compressed
	Transillumination – differentiates between solid and a fluid-filled lump

Table 3. Differential Diagnosis

Giant cell tumour
Epidermoid cyst
Pilomatricoma
Eccrine spiradenoma
Eccrine acrospiroma
Basal cell epithelioma
Pleomorphic adenoma

The ANZSPD Alistair Devlin Memorial Grant

At the ANZSPD Federal Council meeting in Melbourne in February 2014, it was decided that the existing ANZSPD Grant be renamed The ANZSPD Alistair Devlin Memorial Grant in honour of Alistair's memory and to acknowledge his most significant contribution to the society.

One grant per year will be provided to the value of AUD \$2000 with eligibility restricted to current Full Members of ANZSPD (Inc.)

The grant is available for:

- An oral health initiative in Australia or New Zealand which may be an educational resource or a broad community initiative
- A community research project directly related to child oral health
- Support for an oral health project in Asia, Oceania or the Pacific that might be for materials, instruments, books for a school, etc.

Applications are now being called for the inaugural ANZSPD Alistair Devlin Memorial Grant.

The successful applicant will be required to provide a report to the Federal Council, suitable for publication in the society's newsletter, Synopses, by the end of 2015.

The Federal Council may choose not to award a grant in the event of there being no suitable applications.

Applications should be submitted electronically by 31 July 2014:

Dr Peter Gregory, Federal Secretary-Manager
ANZSPD (Inc.)

federal.secretarymanager@anzspd.org.au

Federal Council will then adjudicate.



IAPD

International Association of Paediatric Dentistry

An international forum for the advancement of oral health for children

www.iapdworld.org

25th International Congress of IAPD – 1 - 5 July 2015 – Glasgow/UK



The Bright Smiles-Bright Futures Award

Sponsored by Colgate – Palmolive

RULES

1. The name of the Prize is to be the Bright Smiles-Bright Futures Award and is offered at each IAPD Biennial Congress.
2. The value of the Prize is to be 2000 US Dollars. In addition, there will be a further 3 classified winners who will each win 500 US dollars.
3. The Prize is open to any **IAPD individual member or organization** (at least one member of the team must be an IAPD individual member) responsible for creating or implementing a preventive oral health community programme serving children. The Prize will be awarded for the most meritorious essay. It will be judged by an international panel of adjudicators.
4. Registration at the Congress is a requirement for competition entry
5. Entry forms are obtained from the Association Co-ordinator Mrs Sylvie Dutilloy at the IAPD Secretariat.
6. All entries are to be sent **electronically** to iapd@iapdworld.org unless otherwise stated to the IAPD Secretariat (or an alternative address that is provided) in a final and completed version before the deadline established for each Congress
7. All entries have to be accompanied with a completed Award application form
8. The International Association of Paediatric Dentistry reserves the right of publication of the prize-winning essay.
9. The essay must be submitted by **31 January 2015** to the IAPD secretariat:

Mrs Sylvie Dutilloy

IAPD –

c/o FDI World Dental Federation - Tour de Cointrin – Avenue Louis Casai – C P 3 –
1216 Cointrin Genève - Switzerland

Telephone: +41 (0)22 560 81 50 – Fax: +41 (0)22 560 81 40 –

E-mail : iapd@iapdworld.org.

Nodular Fasciitis of the Oral Cavity Case Report.

Maysoon Kassim*, Mohammad Alansary**, Bernadette Drummond***

* Oral & Maxillofacial Surgery Specialist, Bnied Al Gar Speciality Dental Centre, Kuwait

** Paediatric Dentist and PhD student, University of Otago, New Zealand

*** Paediatric Dentist, University of Otago, New Zealand

Introduction

Nodular fasciitis (NF) is a benign, discrete proliferation of fibroblasts in soft tissue. It is a rapidly proliferating fibroblastic lesion that presents as tumour mass, which resembles sarcomas in many ways. It shows rapid growth, rich cellularity and mitotic activity. It can only be diagnosed by histopathological examination. Although up to 20% of cases occur in the head and neck region, lesions of the oral cavity are extremely rare. Due to its aggressive clinical behavior, accurate histopathological identification is essential to prevent unnecessary radical surgery. Konwaler et al, first described the condition in 1955. It is also known as subcutaneous pseudosarcomatous fasciitis or proliferative fasciitis because of its rapid growth and histological features (1). Davies et al. 1989 described it as “a distinct entity which is a benign, quasi-neoplastic proliferation of fibroblasts characterized by rapid growth and a deceptive histological appearance” (2). In general, NF lesions are small, solitary and show no gender predilection (3). Lesions may occur at any age. They are most commonly found on the extremities, occasionally on the trunk and rarely in the maxillofacial region. NF is the most common benign mesenchymal tumour that can clinically and histologically mimic malignancy. It is frequently misdiagnosed as sarcoma due to its rapid growth, rich cellularity and mitotic activity (4). We report a case of sub-mucosal nodular fasciitis occurring on the left cheek in a nine year-old girl. It was treated with simple local excision.

Case Report

A nine year-old girl presented with a swelling of rapid onset in the left cheek, discovered accidentally by her parents. It had a history of three weeks onset. There was no antecedent history of local trauma. On clinical examination, a mass measuring approximately 1.5 cm in diameter was palpable intra-orally (Fig 1). The lesion was located below the oral mucosa, was firm and very mobile, but not tender to palpation. There was no history of any significant medical problems. Under general anaesthesia, the

lesion was removed via a small incision in the buccal mucosa. The lesion involved the buccinator muscle but not bone and it was dissected out (Fig 2, 2a). Histology examination revealed the specimen was composed of loose, fibroblastic cells arranged in a storiform pattern with a myxoid background in many areas (Fig 3, 3a). Extravasated red blood cells and a mixed inflammatory infiltrate were also present. A few mitotic figures were identified but there was no atypia. The final diagnosis was inflammatory nodular fasciitis. The patient was followed up for one year with no lesion recurrence.

Pathogenesis

The exact cause of nodular fasciitis is still unknown. Most authors believe that the lesion represents some type of reactive or inflammatory condition triggered by local injury or infection. Although only 10-15% of patients report a history of trauma, nodular fasciitis is considered to be a benign, reparative, non-neoplastic proliferative process (5). Gene expression arrays have shown that the proliferating cells produce many molecules involved in cytokine signaling and inflammation (6). Sawyer et al. 1994, reported clonal cytogenetic aberrations in nodular fasciitis that includes a reciprocal translocation and interstitial deletion (7). The clonal chromosome aberrations found in their report were present in only 2% of the cells analyzed. They also assumed that a new recurring aberration may be occurring. It was also suggested that the deletion of chromosome band 13q14 which is the locus for the retinoblastoma gene (RB1) or its inactivation by chromosome aberrations may have a pleiotropic effect on the development of a variety of tissue types including soft tissues suggesting a shared pathogenic mechanism (8). Weibolt et al. (1998) reported chromosomal anomalies of chromosome 3 in two of three cases of nodular fasciitis. Specifically, a rearrangement of 3q21 with group D acrocentric chromosomes has been observed (9).

Fig 1. View of the lesion before surgical removal

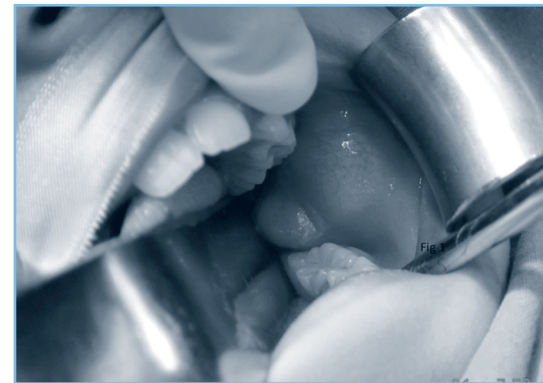


Fig 2, 2a. Surgical removal of the lesion

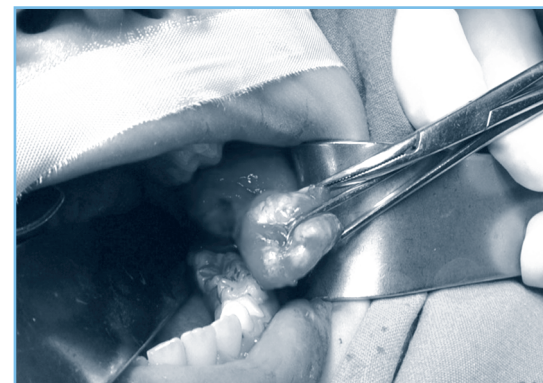
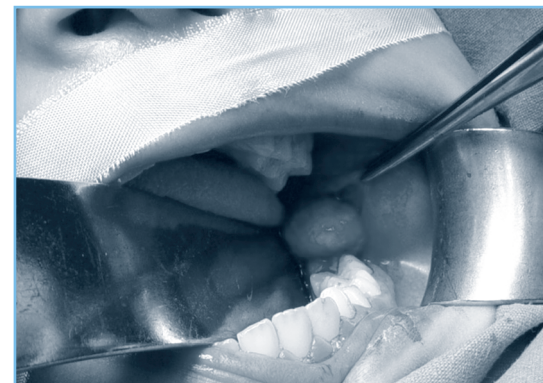
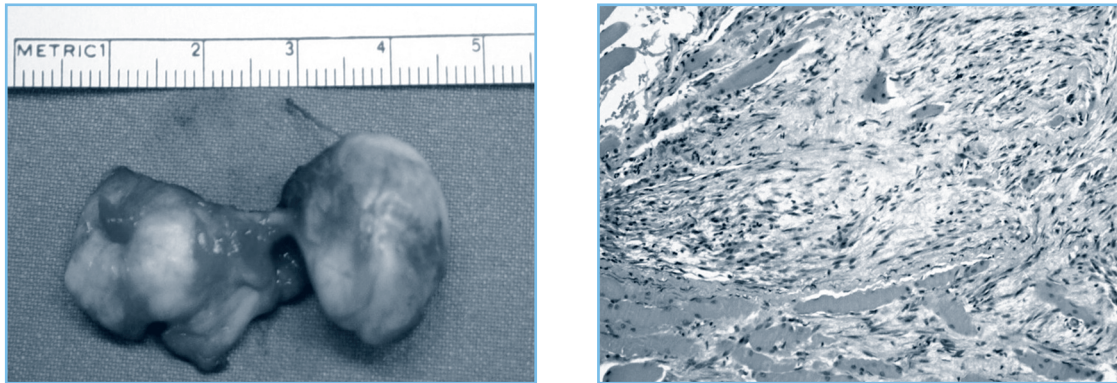


Fig 3, 3a Histopathological section using H&E stain showing proliferating plump spindle cells infiltrating and replacing muscle fibres.



Discussion

Despite the often aggressive microscopic appearance, nodular fasciitis is a self-limiting lesion which is readily treated by simple local excision. Deeper lesions tend to be somewhat larger and less well demarcated; hence require a wider local excision. Graham et al. 1999, reported intra-lesional injection of triamcinolone acetonide (Kenalog-10, 10 mg/ml, Apothecon) into a large subcutaneous NF lesion in an attempt to reduce its size prior to surgical removal. At 36 hours re examination revealed that the mass had completely resolved. There was no recurrence at one year (10). Reported recurrence rates vary from 1-6% with this treatment. Some lesions have been reported to regress and disappear without treatment. Mighell 1995, noted that differences in nomenclature exist and that nodular fasciitis, proliferative fasciitis, periosteal fasciitis, cranial fasciitis, intravascular fasciitis and proliferative myositis are believed to represent the same, reactive, pseudo-sarcomatous pathological process. Fasciitis in the head and neck region may not be as rare as it has been thought to be (11). Han et al. 2006, examined six patients with NF in their case series report (12). Lesions were located in the cheek, masseter muscle, parotid gland, upper neck, maxillary gingivae and body of the mandible. They also analyzed reports of 23 patients with oro-facial NF in an attempt to establish definitive characteristics that may aid in diagnosis of these lesions. They reported that in orofacial NF, most lesions were located in the skin of the face, parotid gland, subcutaneous tissues overlying the mandible and zygoma (13,14). Approximately 10% of lesions occur in children. Clinical features of NF in the oral and maxillofacial region are similar to those in other regions. Lesions are generally small and solitary; characterized by rapid

growth and hard consistency (15). Studies have reported that within the oral region NF lesions were most common in the buccal mucosa, labial mucosa and tongue, making up almost 80% of oral NF (16). Fibromatosis and spindle cell sarcomas are two important lesions that should be included in the differential diagnosis of NF. Other differential diagnoses of lesions like NF include benign entities such as fibroma, myxoma, myxoid neurofibroma, fibrous histiocytoma and myofibroma, and malignant lesions such as fibrosarcoma, malignant fibrous histiocytoma, neurofibrosarcoma, myxofibrosarcoma, rhabdomyosarcoma, liposarcoma, and angiosarcoma.

Conclusion

Nodular fasciitis is probably a reactive fibro-proliferative response to injury. The lesion is benign but has a rapid rate of growth and a histopathological appearance which can be of concern. It is important to recognize the true nature of nodular fasciitis to avoid overtreatment on the basis of microscopic features that are suggestive of malignancy. To our knowledge this case report represents the 24th case of nodular fasciitis in the head & neck area and is the first reported case in Kuwait.

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Oral Health Care for a Child with Crohn's Disease Case Report.

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Introduction

There appears to be a significant increase in the occurrence of inflammatory bowel diseases (IBD) worldwide. The incidence of the disease is increasing worldwide with New Zealand reporting one of the highest incidences [1]. Crohn's disease (CD) is a chronic inflammatory bowel disorder that may affect any part of the gastrointestinal tract. The progress of the disease includes periods of active and inactive phases throughout life [2]. The disease significantly affects the health-related quality of life of the individual. The oral manifestations that have been described in patients with CD include swelling of the lips or buccal mucosa, cobble-stoning appearance of the mucosa, oral ulceration particularly in the buccal sulcus, gingivitis, mucosal tags and angular cheilitis (cracks at the corner of the mouth)[2]. The oral manifestations can be subtle or subclinical, and can harbor granulomas which are useful in diagnosis [3]. Orofacial granulomatosis (OFG), presents with chronic swelling of the lips, oral and/or facial tissues due to granulomatous inflammation. However, many patients diagnosed with OFG when investigated further are shown to either have intestinal CD or to progress to develop intestinal CD over time and it is recommended that patients with oral signs and symptoms of OFG should be asked about gastrointestinal signs and symptoms. If these are present referral to investigate for CD should be undertaken. [4].

Case Report

A 12-year boy accompanied by his mother presented to the Paediatric Dentistry Clinic at the University of Otago in April 2013. His routine dental care had been with the local Community Oral Health Service (COHS). He was referred to the specialist clinic to manage dental caries and dental anxiety. He had been diagnosed with CD in 2012 and was taking Azathioprine. The extra oral examination was within normal limits. Previous to the

diagnosis of CD, his mother reported that he had managed dental care with no problems. He was now anxious about having his teeth examined but managed well using 'tell, show and do' and distraction. On intraoral examination the following were noted: ulceration on the right buccal mucosa adjacent to the first molar, dentinal occlusal caries in the first permanent molars, generalized gingivitis and poor oral hygiene (Fig 1). He was in the early permanent dentition stage of development with a Class I occlusion (Fig 2, 3). Posterior bitewing radiographs showed no evidence of interdental caries lesions and panoramic radiography showed the presence of all permanent teeth including third molars (Fig 4).

The main aim of the treatment plan was to help the patient have dental care without undue anxiety and introduce effective prevention to decrease the risk of dental caries or periodontal disease, thus reducing the burden of interventional dental treatment. He managed plaque disclosing with oral hygiene instruction showing him how to avoid traumatizing the gingiva and prophylaxis and fluoride treatment with fluoride varnish (2.26%F). He was able to cooperate for fissure sealants to be placed at the next visit. However, he was not able/willing to allow local anaesthesia for the needed restorations so with confirmation from the paediatric gastroenterologist, choices of pre-emptive analgesia with paracetamol and/or nitrous oxide-oxygen inhalation sedation were offered to the patient. Oral paracetamol 30mg/kg was prescribed one hour before the restorative appointments and restorative care was carried out successfully with nitrous oxide-oxygen inhalation sedation. The patient's cooperation and confidence increased during the treatment period. During each appointment the impact of diet on teeth was discussed while acknowledging the difficulties faced in choosing foods. Particular emphasis was

Fig 1. Intraoral anterior view showing poor oral hygiene and gingival inflammation



Fig 2. Intraoral left and right lateral views

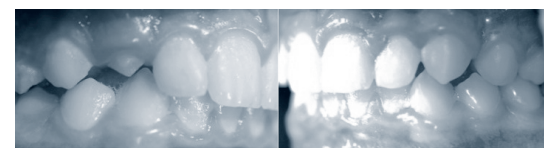


Fig 3. Views of upper and lower arches

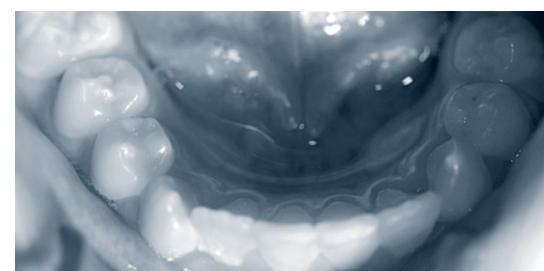
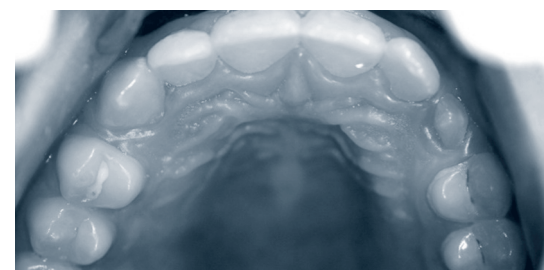
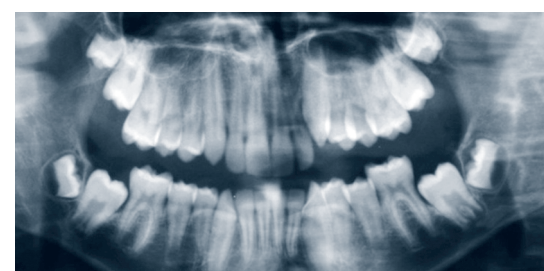


Fig 4. Panoramic radiograph



placed on avoiding high frequency use of sweet acidic foods and drinks and he was advised to try to keep these to meal times. He will be followed up six-monthly for prevention and early management if there is caries progression.

Discussion

Crohn's Disease is a chronic condition with potential physical, emotional, and psychosocial implications for children and their families. The need for oral health care in the management is important. It should be recognized that children with CD may have altered diets and have oral symptoms that may sometimes interfere with adequate oral care. Patients with CD may also develop oral lesions including aphthous ulceration, swelling of the lips, buccal mucosa cobblestoning and mucogingivitis [5,6]. When ulceration is seen, asking about the history may help the dentist to guide oral hygiene to avoid accidental injuries from toothbrushing. When trauma does not appear to be a factor the dentist can alert the physician to the ulceration to allow further investigation. If patients are on immunosuppressant drugs it is important to monitor gingival health. Some studies have reported increased prevalence rates of caries in children with CD [5,7]. This may be due to the changes in the diet which may restrict the intake of dairy food as well as to inadequate oral hygiene because of a fear of causing ulceration. Care could include some of the following: introduction of sugar-free chewing gums (with care because of the sugar alcohols), higher concentration fluoride tooth paste and/or fluoride mouthwash.

CD and its management can have a significant impact on psycho-social behavior. Children who have been unwell

may be more emotional, have periods of psychological distress including depression or anxiety which have been reported to be more common in patients with CD [8]. The children may have difficulties in recognizing and verbalizing emotions, and may have difficulty controlling their behavior when under stress [9,10]. They also may have a poorer quality of life due to increased frequency of bowel movements and associated sleep disturbance both of which interfere with their daily activities, school work and social activities. This may impact on how they manage in the dental chair, particularly if they require restorative treatment.

Conclusion

In patients who present with CD, it is very important to consider their emotions and important to develop good communication and understanding particularly for dental appointments that do not go well. A focus should be made on relieving pain when it is present and finding acceptable ways to decrease anxiety. This might include the usual behaviour management techniques and may include the use of pre-emptive analgesia, sedation or general anaesthesia. Furthermore, looking to the future is important to try to help each child develop skills to manage dental care into adulthood.

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Welcome to the Website

Dental professionals caring for children's oral health

Welcome to the new website of the Australian and New Zealand Society of Paediatric Dentistry (ANZSPD). The Society is justly proud of it.

ANZSPD is already Australasia's principal and most respected supplier of continuing professional development courses in Paediatric Dentistry. In time, I trust this website will become Australasia's premier paediatric dental resource for parents, dental practitioners and members alike. Please take the time to make yourself familiar with it because it is already packed with news and information to help keep you up to date on the world of Paediatric Dentistry.

This website will be far more dynamic than ANZSPD's previous website, so it is important to return to it time and time again to keep abreast of the latest in paediatric dental advice, where to find a member and upcoming continuing education courses in Paediatric Dentistry, both in your local area and further afield. ANZSPD has always been keen to improve its service to the profession and the broader community. To this end, ANZSPD would welcome your feedback about the website or any of ANZSPD's other activities.

On behalf of ANZSPD, I would like to thank Dr John Winters who has worked tirelessly to facilitate the development of the new website and all the members who have contributed in any way to the available content.

So now it's time to explore what we have on offer!

With kind regards,

Dr John M Sheahan
Federal President
ANZSPD Inc.



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by Sue Cartwright,
BDS, Dip Clin Dent, M Ed



INTRODUCING...

COLGATE'S NEW BSBF BRUSHING APP FOR CHILDREN

To encourage the whole family to brush Colgate are introducing a *Bright Smiles Bright Futures* based Brushing APP for children.

We thought you might like a preview.

The APP has two parts

1. An educational game which focuses the child on a circular brushing technique. The aim is to remove as many plaque monsters as possible!
2. A two minute timed brushing adventure that the child can watch. The character surfs the waves, collects points and runs alongside jumping dolphins and marine life.

The child will be able to customise the brushing game via character selection and music choice. They can choose their own song or listen to the specially recorded brushing song. To maintain interest and encourage an established brushing regime we have unlockable content which allows for further character customisation (surfboards, wetsuits and additional character choices). Up to 10 profiles can be added per family and points collected on a leader board to introduce an element of competition.

Watch out for the Colgate Brushing APP launching in March this year. Happy family brushing!

Download available on iTunes and Android stores.



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Brisbane Convention & Exhibition Centre
Australia
www.adc2015.com

1-4th July 2015

IAPD International Congress

"The voice of the child"

Glasgow. UK.
www.iapdworld.org
www.iapd2015.org

8-9th May 2015

9th EAPD Interim Seminar and Workshop

Brussels. Belgium
www.eapd.rg

21-24 May 2015

American Academy of Pediatric Dentistry Annual Session.

Seattle USA
www.aapd.org

19-22 August 2015

New Zealand Dental Association Conference

Auckland New Zealand

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www.nzda.org.nz/pub/index.php?id=210#20158

2-5th June 2016

13th EAPD Congress

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www.eapd.rg

26th IAPD International Congress 2017

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